

**THE BOARD OF REGISTRATION  
FOR PROFESSIONAL ENGINEERS  
AND LAND SURVEYORS**

**JOINT LEGISLATIVE SUNSET  
REVIEW COMMITTEE REPORT TO THE  
CALIFORNIA LEGISLATURE**

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**Board Overview, Issues, Findings  
and Recommendations**

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**Prepared by:  
Joint Legislative Sunset Review Committee**

**APRIL, 1997**

# **JOINT LEGISLATIVE SUNSET REVIEW COMMITTEE**

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# 1.

## OVERVIEW OF THE CURRENT REGULATORY PROGRAM

### BACKGROUND AND DESCRIPTION OF THE BOARD

The California Legislature created the Board of Registration for Civil Engineers in 1929, following the failure of the Saint Francis Dam in northern Los Angeles County which killed 450 people. The Board's jurisdiction over the licensing of land surveyors was enacted in 1933, when the State Surveyor

General's office was abolished. The Board is now officially known as the "Board of Registration for Professional Engineers and Land Surveyors."

The legal provisions of the Professional Engineers Act (PE Act) have had some major changes over the years since the Board's creation. The number of branches of engineering which the Board regulates has increased, and the status of some of the older branches has changed. Currently, professional engineers are registered through three (3) "Practice Act" categories of civil, electrical, and mechanical engineering, and through thirteen (13) "Title Act" categories of agricultural, chemical, control system, corrosion, fire protection, industrial, manufacturing, metallurgical, nuclear, petroleum, quality, safety, and traffic engineering.

There are also two specialized "Title Authorities" for those already registered as a civil engineer: structural and geotechnical (soils) engineer. In addition to the engineering branch titles already listed, titles also restricted to registered engineers are "consulting engineer," "professional engineer," and "registered engineer."

There is only one "Practice Act" category for land surveyors. They are regulated under the Professional Land Surveyors Act (PLS Act). Restricted titles for land surveyors are "licensed land surveyor," "professional land surveyor," "land surveyor," or any combination thereof.

Certification, and title act protection, is also provided to those designated as an "Engineer-In-Training" (EIT) or a "Land-Surveyor-In-Training" (LSIT). An EIT or LSIT will be certified once they have completed the qualifying experience and passed the required exam. These examinations are usually taken and passed prior to applying for registration as a professional engineer or land surveyor.

The Board is presently composed of thirteen (13) members of which seven (7) are public members and six (6) are from the various licensed professions. Eleven members of the Board are appointed by the Governor, while one public member is appointed by the Assembly Speaker and the other appointed by the Senate Rules Committee. There are approximately 85,000 engineers and land surveyors registered with the Board. The following provides licensing data for the past four years:

LICENSING DATA	FY 1992/93	FY 1993/94	FY 1994/95	FY 1995/96
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<b>Registered Licensees (Type)</b>	Total:	Total:	Total:	Total: <b>84,901</b>
Civil				40,625
Geotechnical				1,149
Structural				3,066
Electrical				8,084
Mechanical				15,024
Land Surveyor				3,598
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Agricultural				354
Chemical				2,269
Control Systems				2,930
Corrosion				632
Fire Protection				943
Industrial				1,177
Manufacturing				1,938
Metallurgical				576
Nuclear				1,305
Petroleum				536
Quality				2,456
Safety				1,556
Traffic				1,334
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EIT Certificate				
LSIT Certificate				
<b>Applications For Exams</b>	Total: <b>21,509</b>	Total: <b>19,906</b>	Total: <b>17,117</b>	Total: <b>15,100</b>
Professional Engineer	9,228	9,717	8,750	7,434
Land Surveyor	699	695	571	691
Structural	396	452	361	371
Geotechnical	39	104	85	103
EIT/LSIT	11,147	8,938	7,350	6,501
<b>Licenses Issued (Type)</b>	Total: <b>5,213</b>	Total: <b>7,149</b>	Total: <b>6,655</b>	Total: <b>5,359</b>
Civil	1,893	1,380	1,857	1,422
Geotechnical	75	29	32	42
Structural	115	135	110	56
Electrical	296	299	425	211
Mechanical	622	471	458	461
Land Surveyor	173	229	116	60
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Agricultural	3	0	2	2
Chemical	89	69	93	75
Control Systems	7	12	12	18
Corrosion	3	5	7	6
Fire Protection	2	20	29	26
Industrial	11	48	5	8
Manufacturing	2	0	4	2
Metallurgical	1	5	0	5
Nuclear	5	2	3	0
Petroleum	23	12	3	1
Quality	10	2	3	2
Safety	13	0	0	7
Traffic	103	18	73	27
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EIT Certificate	1,711	4,119	3,390	2,868
LSIT Certificate	145	363	126	135
<b>Renewals Issued</b>	Total: <b>19,326</b>	Total: <b>19,588</b>	Total: <b>19,334</b>	Total: <b>24,875</b>

## BUDGET AND STAFF

The main sources of revenue for the Board are generated from candidates taking the written examinations and for the issuance and renewal of licenses. The fees collected from candidates taking the examination do not support the examination program. Fees for licensure and renewal of licenses must be used to supplement the administration of the exams required by the Board.

(In FY 1995/96, the Board administered 19,880 examinations.)

The Board's projected expenditures for fiscal year 1996/97 is about \$6.5 million. Anticipated revenues are about \$8.1 million. The Board's current reserve is about \$2.4 million. As of June 30, 1997, the Board expects a reserve of about \$4 million, or 66% of its total budget. (Almost 7 months of reserve.) It has been six years since fees have been increased. The Board does not indicate, however, whether a fee increase may be anticipated in the near future. It is unlikely considering the size of the Board's reserves.

For fiscal year 1995/96, the Board spent \$3.1 million on the administration of its examinations, or 51.7% of its total budget. The Board spent \$2.4 million on enforcement, or 39.7% of its total budget. Other boards spend on average about 7% of their budget on examinations and 66% on enforcement.

The Board has a staff of 38 employees and 37 authorized positions for FY 1996/97. The enforcement and legislative unit of the Board has a staff of eight (8) people and two (2) half-time employees.

## FEES

The Board's license is good for four (4) years. The Board's current fee structure is as follows:

Fee Schedule	Current Fee	Statutory Limit
Application/Exam Fee		
Professional	\$175	\$175
In-Training	\$60	\$60
Renewal Fee (Every 4 years)	\$160	\$175
Delinquency Fees	\$80	\$80
Exam Appeal Fee	\$98	\$98
Duplicate Certificate Fee	\$10	\$10

## LICENSING REQUIREMENTS

Not all engineers who practice in California have to be licensed. There are a number of licensing exemptions for those engineers who are employees of licensed engineers, work for industrial corporations, public utilities or the federal government. Of the approximately 2.2 million practicing engineers in the United States, only about 18% are required, or chose to be licensed. Some licensing specialties are higher, such as civil engineers with 44%, while others are lower, such as chemical engineers with only 8% being licensed.

To become licensed as an engineer or land surveyor in California, a candidate must complete a written examination as it pertains to their specialty, as well as provide evidence of at least six years of education and/or work experience.

(Most other states require at least eight years of combined experience.) However, not all licensees have been required to take an examination. With the adoption of each title act, practice act, and practice authority, registrants were grandfathered. Almost half of the current registrants in some disciplines were grandfathered.

Exams administered to engineers and land surveyors are either provided by the National Council of Examiners for Engineering and Surveying (NCEES), or developed by the Board. The Board administers 25 separate types of examinations for the 21 disciplines in which the Board offers licensing, registration, or certification.

The Board defines qualifying engineering work experience as, “that experience satisfactory to the Board which has been gained while performing engineering tasks under the direction of a person legally qualified to practice in an applicants branch of engineering.” The experience requirements for a land surveyor must be gained under the “immediate direction and supervision” of a person qualified to practice land surveying.

The applicant must submit with the application for licensure a summary of all work experience, along with “positive” references by those who employed the candidate (called the “Engagement Summary and References Record”).

There has to be at least four “satisfactory” references from persons authorized to practice in the discipline in which the applicant is applying, and who has “personal knowledge” of the applicant’s qualifying experience.

There are several restrictions in using qualifying experience, some of which include: (1) a candidate cannot count work done during college as qualifying experience, (2) they cannot count overlapping work done in other areas (or disciplines), and (3) they cannot use the same qualifying experience for one discipline to qualify in another.

The following outlines the various licensing requirements for all of the 21 disciplines regulated by the Board:

- **Engineer/Land Surveyor-In-Training.** The EIT and LSIT exam is typically taken before applying for licensure as a professional engineer or land surveyor. It is an eight hour NCEES exam offered twice a year which is used to test the

fundamentals of engineering or land surveying. The applicant for the EIT exam must usually have completed three years of college or university education in a program approved by the Accreditation Board for Engineering and Technology (ABET), or three or more years of Board-approved experience. There are no educational or experience requirements to take the LSIT. *[About 5,500 candidates took the exam in 1995. The passage rate for 1995 was 62%. The passage rate has consistently increased since 1990, when it was in the 40% range.]*

Applicants for licensure in one of the disciplines can waive the EIT or LSIT exam. However, the experience requirements are substantial, 6 to 17 years of experience depending on the type of education the candidate has prior to applying for the examination.

- **Civil Engineer.** A candidate for civil engineer must meet all of the above requirements, have a total of six years of qualifying experience (four of which will be granted for an ABET accredited BS degree, or two years for a non-accredited BS degree), take the eight hour NCEES exam for civil engineering which is offered once a year, and also take the California Seismic Principles and Engineering Surveying exams developed by the Board in 1988, as well as complete and pass the take-home test on California engineering laws and Board rules. *[About 2,550 candidates took the NCEES exam in 1995. The passage rate was 45%. There is only about a 2-5% variation in pass rate from one year to the next. About 3700 candidates took the Seismic exam in 1995. The passage rate was 43%. However, the pass rate on this exam has a substantial variation from one test to the next, sometimes as much as 20%. About 3300 candidates took the Engineering Surveying exam in 1995. The passage rate was 40%. Again, the pass rate on this exam has substantial variation from one test to the next, sometimes as high as 25%.]*

To qualify for the specialty titles of “structural” or “geotechnical” engineer, all of the requirements for a civil engineer must be met, as well as take the appropriate exam developed by the Board.

(The structural exam is 16 hours, while the geotechnical exam is 8 hours.)

There is also additional qualifying experience which is necessary. The candidate for structural engineers must have three additional years of “responsible charge” experience in structural design work, and submit three references from structural engineers to verify this. (“Responsible charge” is defined in Section 6703 of the B&P Code and means the independent control and direction, by the use of initiative, skill, and independent judgment, of the investigation or design of professional engineering work or the direct engineering control of such projects. The Board further defines this term in Rule 404.1 of its regulations.)

The candidate for geotechnical engineer must have four years of “responsible charge” experience in soil engineering projects, and submit four references from civil engineers, two of which who are actively engaged in the practice of “soil engineering.”

- **Other Professional Engineering Disciplines.** The requirements for the other engineering disciplines are similar to those for a civil engineers except candidates are not required to take the Seismic Principles and Engineering Surveying exams. Some of the exams are provided by NCEES, while others have been developed by the Board. All of them are 8 hour exams.  
*[The Board has provided a breakdown of exam passage rates for all exams provided in the last four years. The passage rate for 1995 varies, from a low of 10% for Petroleum Engineer to a high of 55% for Corrosion Engineer.]*
- **Land Surveyor.** If a candidate for land surveyor holds a LSIT certificate, they must have a total of six years of qualifying experience before they can take the exam. Four years will be granted for graduation from an approved program. The two years remaining work experience must include one year of responsible field training and one year of responsible office training. If a candidate does not graduate from an accredited program, they can still receive one year of credit for each year of post secondary education as long as it is still approved by the Board, and the Board may grant two years experience for passing the LSIT exam. A registered civil engineer will only need two years of experience in land surveying to take the exam.

- The Board does not provide the national land surveyor exam, but instead has developed its own exam. It is an 8 hour exam provided once a year. [*About 600 candidates took the exam in 1995. The passage rate for 1995 was 8%. This is the lowest it has been in four years. In prior years the pass rate has been from 15% to 25%.*]

## CONTINUING EDUCATION/COMPETENCY REQUIREMENTS

There is no requirement that engineers or land surveyors participate in continuing education as a condition for license renewal. The Board, however, is now proposing that it be allowed to adopt a Continuing Professional Development program.

The Board may require as a condition of probation remedial education for those engineers or land surveyors found to be guilty of violating the PE Act or PLS Act.

## ENFORCEMENT ACTIVITY

ENFORCEMENT DATA	FY 1992/93	FY 1993/94	FY 1994/95	FY 1995/96
Inquiries	Total: <b>10,395</b>	Total: <b>8,956</b>	Total: <b>12,224</b>	Total: <b>12,263</b>
Complaints Received (By Source)	Total: <b>157</b>	Total: <b>183</b>	Total: <b>243</b>	Total: <b>279</b>
Public	113	106	108	159
Licensees	4	2	18	12
Other	40	75	117	118
Complaints Filed (By Type)	Total: <b>346</b>	Total: <b>225</b>	Total: <b>256</b>	Total: <b>315</b>
Unlicensed Activity	37	48	46	83
Competence/Negligence	100	57	79	124
Contractual	60	25	22	18
Fraud	64	30	26	19
Other	1	3	3	3
Record of Survey	25	17	14	25
Examination Subversion	59	45	66	43
Compliance Actions	Total: <b>29</b>	Total: <b>12</b>	Total: <b>10</b>	Total: <b>38</b>
Citations Only	0	0	0	7
Citations with Fine	0	0	0	0
Cease & Desist/Warning	25	10	8	29
Mediated	4	2	2	3
Investigations Opened	Total: <b>68</b>	Total: <b>22</b>	Total: <b>37</b>	Total: <b>30</b>
Disciplinary Actions*	Total: <b>13</b>	Total: <b>14</b>	Total: <b>14</b>	Total: <b>21</b>
Accusations Filed	21	20	21	23
Accusations Withdrawn	11	9	3	6
Dismissed	2	1	1	1
Probation	10	11	11	12
License Suspension	0	0	0	2
License Revocation	3	3	3	5
Restricted Registration	0	0	0	2
Referred to District Attorney	23	4	5	13

\*The total number of "Disciplinary Actions" are those in which either license revocation, suspension or probation occurred.

## COMPLAINT DISCLOSURE POLICY

The Board will provide the public with information regarding complaints only after an investigation has been completed and it is determined that a violation has occurred. It does not disclose the number of pending complaints which are currently being investigated against the licensee. (There are some Boards which will supply the number of pending complaints against a licensee while an investigation is in process. However, they will not disclose the nature of the complaints.) Information about citations is disclosed only after the citation has become final.

## COST RECOVERY AND RESTITUTION TO CONSUMERS

COST RECOVERY	FY 1992/93	FY 1993/94	FY 1994/95	FY 1995/96
Requested	\$23,101	\$20,832	\$51,703	\$46,935
Received	\$23,101	\$10,232	\$6,237	\$14,055

In most cases, the Board does not order restitution for the consumer. The Board indicates that its duty “is to protect the public, not to collect recompense for individual consumers.” Consumers are advised that they can seek monetary damages through the small claims or civil court system. However, the Board does order restitution as a condition of probation in cases in which it has been proven that the consumer was financially damaged by the registrant’s breach of contract. The following provides restitution ordered by the Board for the past four years:

RESTITUTION	FY 1992/93	FY 1993/94	FY 1994/95	FY 1995/96
Ordered	\$7,500	\$4,627	\$6,011	\$22,936
Received	\$7,500	\$0	\$6,011	None Yet

## CONSUMER OUTREACH AND EDUCATION

Consumer outreach and education is a more recent occurrence for this Board. In December 1994, the Board published a guide for consumers titled, “*Consumer Guide to Professional Engineering and Professional Land Surveying*.” In July 1995, the Board’s Enforcement Unit began an outreach program to meet with local public agencies, various professional societies and associations, to discuss issues including unlicensed activity and violations of the practice acts. In 1995, the Board also began sending its *Annual Report* and *Enforcement Bulletin* to all registrants in order to further educate them regarding violations of the law. Both of these documents print summaries of all disciplinary actions taken by the Board.

## 2.

### IDENTIFIED ISSUES AND FINAL RECOMMENDATIONS OF THE JOINT LEGISLATIVE SUNSET REVIEW COMMITTEE

**ISSUE #1.** Should the Joint Committee support a complete revision of the Professional Engineers' Act ("PE Act Rewrite") as proposed by the Board?

**Recommendation:**

*The Joint Committee has been unable to fully assess the ramifications of the "PE Act Rewrite" as proposed by the Board, and as such, has no position at this time. The Board must demonstrate how the Rewrite will improve the existing regulatory situation for consumers. To the extent the Rewrite moves away from title acts, if the title protections cannot demonstrate how it protects the public from harm, the Joint Committee is supportive of sunseting the titles.*

**Comment:** Since February of 1994, the Board has held 12 informational forums throughout the State and has participated in approximately 50 meetings sponsored by professional societies. The outcome of this has been a major proposal to rewrite the entire Professional Engineers' Act. This legislative proposal was recently introduced. Some of the major issues which the Board is attempting to address in its PE Act Rewrite, are also those which the Joint Committee and DCA must consider when reviewing all aspects of licensure and Board operation.

**ISSUE #2. Should the State continue to regulate the practice of Civil, Electrical, Mechanical Engineering and Land Surveying, and the fifteen(15) title act disciplines of engineering?**

**Recommendation:**

*The State should continue regulating the practice of civil, electrical, mechanical engineering and land surveying. However, other areas of engineering regulated by the Board should be limited to areas in which there is a clear potential for harm to the consumer. The concept of “Title Acts” of engineering should be reevaluated. If it cannot be demonstrated that the practice as encompassed by the title, if performed unregulated, poses the risk of health, safety, or financial harm to the public, then that practice should be unregulated. If unregulated, the title restriction should be abolished. Recommend that the Joint Committee, the Department, and the Board work together to determine what areas of engineering should be regulated and how title acts should be eliminated.*

**Comment:** The Board has struggled for many years over the issue of which disciplines of engineering should be regulated, and how best to regulate them.

The Board has recommended in its PE Act Rewrite, that they now be granted legislative authority to review all existing “title acts” for two years from the date of its enactment, and which “title acts” should be converted to “practice acts.” There would be no legislative review of the newly created practice acts. Considering the inability of the Board to resolve this issue in the past, and the considerable impact these changes may have on the profession, there should be a combined effort on the part of the Board, the Joint Committee, the Department, and the profession to review this issue of licensure, and other issues as indicated in this document, in the context of the PE Act Rewrite.

**ISSUE #3. Should all engineers be allowed to perform “supplemental work” in other engineering disciplines, as long as they are competent to perform in these areas based on their education, training and experience?**

**Recommendation:**

*The Board should define and justify its definition of “supplemental work,” but it should first discuss the concept of “supplemental work” along with any review regarding licensure and “title acts,” as previously recommended.*

**Comment:** The definition of “supplemental work,” and how it is enforced, is critical to all recommendations regarding licensure. The engineering profession is unique in the amount of crossover that occurs from one discipline to the next. Civil engineers do some electrical and mechanical, some electrical do mechanical and civil, some industrial engineers do civil engineering work, and on and on it goes.

It is difficult to draw a fine line between one practice of engineering and that of another. The Board has proposed allowing overlap between other areas of practice as long as the engineer is “competent” in the other discipline. How to define areas of competence, and what supplemental work is permissible, needs further review.

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**ISSUE #4. Should the Board of Professional Engineers and Land Surveyors be continued as an independent board, or should its operation and functions be assumed by the Department of Consumer Affairs?**

**Recommendation:**

*An independent Board of Professional Engineers and Land Surveyors should be continued. However, the sunset date for this Board should only be extended for two years, to July 1, 2000, because of major unresolved issues dealing with the regulatory authority of this Board. The review of this Board should only be limited to those unresolved issues as identified by the Joint Committee.*

**Comment:** Although the Board has received criticism in the past for spending an enormous amount of time and energy on trying to define the scope of practice for the various engineering disciplines, and little on other activities which are more important to consumer protection, it now appears more committed to making some necessary changes to enhance licensing and enforcement activities, and in dealing head on with the issue of regulating the practice of engineers in California. The Board has introduced a major proposal to rewrite its entire Professional Engineers Act. Neither the Department nor Joint Committee staff have had an opportunity to adequately analyze the impact of this proposal. However, this proposal may provide an opportunity to resolve some of the major issues surrounding this Board, such as elimination of Title Acts. By extending the sunset date for only two years, the Legislature and

the Administration will have an opportunity to review this proposal. If it passes, then an appropriate sunset date could be included in the measure. If it does not, then the Joint Committee will still need to address some of these unresolved issues. A sunset date of July 1, 2000, would allow legislation to be introduced in 1999, to reinstate the Board.

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**ISSUE #5. Should the composition of the Board be changed?**

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**Recommendation:** *The total membership of the Board should not be changed, but the Board should be structured so as to adequately reflect the licensing population of engineers in the private and public sector.*

**Comment:** The Board has 13 total members: 7 public and 6 professional. Five (5) of the members serving on the Board are private consultants, owners of their own firms, and past members of a single state association. Engineers also work in the public sector and for industry. It has been argued by these groups, that the make-up of the Board does not adequately reflect the practice of engineering in this State.

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**ISSUE #6. Should the exemption from licensure for employees of industry be expanded for engineers who either contract with, or provide consulting services for, exempt industries?**

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**Recommendation:** *The Joint Committee supports an expansion of the exemption. It should be expanded to include not only direct employees and consultants, but also temporary employees, contract employees, and those hired through third-party contracts.*

**Comment:** Under current law, only employees of industrial corporations are exempt from the PE Act. The Board has recommended that the industrial exemption be expanded to “independent contractors” only. However, this may not cover situations where employment companies (“job shoppers”) contract with industry, or other types of third party arrangements. The Department and the Joint Committee believes that the definition of “industrial” should be more clearly defined and its scope broadened to cover all engineers who provide services to industrial companies, especially in regards to high technology and computer industries.

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**ISSUE #7. Should the requirements to take the Engineer-In-Training examination be changed or eliminated?**

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**Recommendation:** *The Joint Committee would like further justification for requiring this exam. The benefits of this exam are unclear, as is the necessity of the state mandate.*

*Suggest possibly making the exam advisory for students and potential employers, and no longer a prerequisite for licensure. Would include this issue as part of the review regarding licensure, as previously recommended.*

**Comment:** The Engineer-In-Training (EIT) examination is considered necessary to test for the “fundamentals” in engineering. The applicant must have completed three years of college, or have three years of approved experience, before they can take the EIT examination. The candidate for licensure is then required to take another examination after meeting the 6 year experience/education requirement. Both exams are a prerequisite for licensure. It is unclear why both exams are necessary, and why the applicant must meet education/experience requirements before being allowed to sit for the exam. (The Land-Surveyor-In-Training (LSIT) examination, which is similar to the EIT exam, has no such requirements.)

**ISSUE #8. Should a separate California “Seismic Principles” examination be required for all engineering disciplines, or should it be combined with national examinations for specified engineering disciplines?**

**Recommendation:**

*The current “Seismic Principles” examination, required for civil engineers, should be reviewed to assure that it is only testing for those seismic design principles which are critical to practice in California and to determine if other disciplines identified by the Seismic Safety Commission should be examined. There should also be consideration made to combining this exam with the national exam.*

**Comment:** The Seismic Safety Commission recently reported that current laws permit buildings and their parts to be designed by a variety of disciplines, including architects and civil, structural, mechanical and electrical engineers. It stated that these professionals should be required by licensing law to maintain a level of competence in seismic design commensurate with their responsibilities for such designs. Only civil engineers are now required to take a seismic exam. The Board is recommending that its current “Seismic Principles” exam be required for electrical and mechanical engineering candidates, and that it would evaluate other disciplines for similar requirements. The passage rate of the seismic exam has varied substantially from one year to the next; from a low of 27% in 1993, to a high of 51% in 1996. This exam should not be used to create another barrier to entry into the profession of engineering. The exam should be reviewed to assure that it is only testing for those seismic design principles which are critical to practice in California and to determine if other disciplines identified by the Seismic Safety Commission should be examined. There should also be consideration made to combining this exam with the national exam.

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**ISSUE #9. Should the “Engineering Surveying” examination required for candidates of civil engineering be changed or eliminated?**

**Recommendation:**

*Further justification for requiring this examination is necessary. The benefits of this exam are unclear, as is the necessity of the state mandate. Recommend that include this issue as part of the review regarding licensure, as previously recommended.*

**Comment:** The passage rate for the “Engineering Surveying” exam has varied substantially from one year to the next: from a low of 25% in April 1993, to a high of 60% in October 1994. (The passage rate for October 1996 was 46%.) This would indicate some inconsistency in the scoring of this examination. It is also unclear whether this exam is still necessary for all civil engineers.

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**ISSUE #10. Should the Board eliminate the current California examination for “Structural” (Civil) Engineers and instead utilize the national examination?**

**Recommendation:**

*Further justification for requiring a California examination for structural engineers, rather than utilizing the national examination, is necessary. Recommend that include this issue as part of the review regarding licensure, as previously recommended.*

**Comment:** For a civil engineer to use the title “structural” engineer, they must pass the California “structural engineering” examination. The passage rate for this examination has been extremely low. On average, only about 27% of candidates pass this exam. (The passage rate for 1995 was 13%.) It is unclear why California must use its own examination, when it appears as if the national examination on structural engineering (with a higher passage rate) could be utilized. This could also lower some of the costs for providing a California examination.

**ISSUE #11. Should the Board perform a task analysis on the California Professional Land Surveyors examination, and utilize the (national) NCEES Professional Land Surveyors examination, along with the California-specific examination, in order to provide land surveyors comity with other states?**

**Recommendation:**

*The Board should utilize the NCEES examination for land surveyors and only use a California-specific examination which tests in those areas which are essential to practice in California.*

**Comment:** The Board is recommending to perform a task analysis on its current Professional Land Surveyors exam primarily due to its very low passage rate. (Out of 606 who tested for the exam in 1995, only 8% passed.) The Board is also considering utilizing the national NCEES Land Surveyor exam for purposes of comity with other states. On average, about 50% of other state candidates for the NCEES Land Surveyor pass the exam. If the national exam is required, the State exam should only test in those areas which are unique to practice in California.

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**ISSUE #12. Should the six year experience requirement for licensure be increased to eight years as recommended by the Board?**

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**Recommendation:** *The Board must demonstrate how an increase in two years of experience will enhance consumer protection. Should include this issue as part of the review regarding licensure, as previously recommended.*

**Comment:** The Board argues that California is the only state which allows for registration after only six years of experience; other states require eight years. They claim that problems arise when a California registrant applies for comity with other states. However, the Board only provided evidence of comity problems with two other states. There was no data presented indicating that applicants are less competent in California than other states because of the current experience requirement, or that increasing the required experience from six to eight years would enhance consumer protection.

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**ISSUE #13. Should there be a continuing education requirement for all engineers, prior to renewal of a license, as recommended by the Board?**

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**Recommendation:** *Joint Committee believes that all proposals to implement continuing education requirements, as a prerequisite for licensure renewal, should demonstrate that the mandate will improve licensee competency and will have a measurable impact on consumer protection. Do not believe that the Board has provided sufficient justification for adopting a continuing education requirement for all engineers. No recommendation at this time.*

**Comment:** Only six states currently require continuing education for engineers. The Board has not provided any substantial evidence that continuing education is necessary for all engineers, or would be effective in improving the competence of engineers.

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**ISSUE #14. Should there be a “retired status” for engineers and land surveyors as recommended by the Board?**

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**Recommendation:** *There is no justification at this time for granting a retired status to engineers and land surveyors.*

**Comment:** There does not appear to be any benefit to designating such a class of engineers. Section 462 of the Business and Professions Code currently allows any board to create an “inactive” category of licensure through regulation. An inactive classification allows a

professional to discontinue their practice for an extended period time, and assures that the individual is competent if they decide to return to practice.

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**ISSUE #15. Should the Board be granted legislative authority to define in regulations a code of professional practice?**

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**Recommendation:**

*The Board should only be granted this new authority after language has been reviewed by the Joint Committee. Recommend that include this issue as part of the review regarding licensure, as previously recommended.*

**Comment:** The Board is recommending it be granted legislative authority to enact a code of professional practice (conduct) for engineers and land surveyors in regulatory form. Other boards have authority to adopt a code of professional conduct. However, with new authority granted to boards to cite and fine licensees based on violations of their respective professional acts, the basic tenets of unprofessional conduct should be provided in statutory form rather than in regulations. The Joint Committee should review this language before making any recommendation.